National Institute of Environmental Health Sciences

The public health implications of melioidosis

Author(s): Inglis TJ, Sousa AQ
Year: 2009
Journal: The Brazilian Journal of Infectious Diseases : An Official Publication of The Brazilian Society of Infectious Diseases. 13 (1): 59-66

Abstract:

Melioidosis, which is caused by the bacterium Burkholderia pseudomallei, is a potentially fatal tropical infection, little known outside its main endemic zone of Southeast Asia and northern Australia. Though it has received more attention in recent years on account of its claimed suitability as a biological weapon agent, the principal threat from melioidosis is a result of naturally occurring events. Occasional case clusters, sporadic cases outside the known endemic zone and infections in unusual demographic groups highlight a changing epidemiology. As melioidosis is the result of an environmental encounter and not person-to-person transmission, subtle changes in its epidemiology indicate a role environmental factors, such as man-made disturbances of soil and surface water. These have implications for travel, occupational and tropical medicine and in particular for risk assessment and prevention. Practical problems with definitive laboratory diagnosis, antibiotic treatment and the current lack of a vaccine underline the need for prevention through exposure avoidance and other environmental health measures. It is likely that the increasing population burden of the tropical zone and extraction of resources from the humid tropics will increase the prevalence of melioidosis. Climate change-driven extreme weather events will both increase the prevalence of infection and gradually extend its main endemic zone.

Source: http://dx.doi.org/10.1590/S1413-86702009000100013
http://www.ncbi.nlm.nih.gov/pubmed/19578632

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Health Professional

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes

Geographic Feature: ☑

resource focuses on specific type of geography

Rural, Tropical

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Australasia

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease

Foodborne/Waterborne Disease: Meliodidosis

Medical Community Engagement: ☑

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status, Workers

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content